

Amendments to the Claims

1. (currently amended) A balun, comprising:
 - a first capacitor coupled to an input;
 - a plurality of first coupled metal traces coupled to said first capacitor;
 - a plurality of second coupled metal traces, said plurality of second coupled metal traces electromagnetically coupled to said plurality of first coupled metal traces;
 - a ground coupled to said plurality of second coupled metal traces;
 - a first output coupled to said plurality of second coupled metal traces;
 - a second output coupled to said plurality of second coupled metal traces,
 - a second capacitor coupled between said plurality of first coupled metal traces and ground, wherein said second capacitor electrically loads said plurality of first coupled metal traces so that each metal trace in said plurality of first coupled metal traces and said plurality of second coupled metal traces has a physical length less than one-quarter wavelength of an input signal received at said input;
 - a third capacitor coupled to said first output; and
 - a fourth capacitor coupled to said second output.
- 2-6. (withdrawn)
7. (currently amended) The balun of claim 1, wherein said first output provides a signal having an equal amplitude and opposite phase to a signal provided from said second output in response to a signal received at ~~input to~~ said input.
8. (currently amended) The balun of claim 1, wherein said plurality of first coupled metal traces and said plurality of second coupled metal traces comprise respective ~~are~~ transmission lines.
9. (withdrawn)

10. (canceled)

11-21. (withdrawn)

22. (currently amended) A balun comprising:

a plurality of coupled metal traces;

an input, coupled to said corresponding metal traces;

an output, coupled to said corresponding metal traces;

means for producing output signals having an equal amplitude and opposite phase responsive to an input signal received at said input, and

means for reducing a physical dimension of said metal traces.

23-34. (withdrawn)

35. (canceled)

36. (previously presented) A balun, comprising:

a plurality of first coupled metal traces that are electrically coupled to each other;

a plurality of second coupled metal traces that are electrically coupled to each other and to said plurality of first coupled metal traces, one end of said plurality of second coupled metal traces connected to ground;

a single-ended input coupled to said plurality of first coupled metal traces, and a differential output taken from said plurality of second coupled metal traces;

at least one of said plurality of first coupled metal traces capacitively coupled to ground, thereby electrically lengthening said plurality of first coupled metal traces and said plurality of second coupled metal traces.

37. (previously presented) The balun of claim 36, wherein said single-ended input is capacitively coupled to said plurality of first coupled metal traces.

38. (previously presented) The balun of claim 36, wherein said differential output is capacitively coupled to said plurality of second coupled metal traces.

39.(previously presented) The balun of claim 36, wherein a physical length of said plurality of first coupled metal traces and said plurality of second coupled metal traces is less than $\lambda/4$ of an input signal received by said input.